Advancements of Learning

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acknowledging unique national and political factors, as well as highlighting transnational commonalities, would ultimately have strengthened the book's conclusions. *The Healthy Jew* offers strong evidence that the Jewish body was not simply regarded as a diseased, inferior one. Indeed, it makes it clear that certain medical writers, both Jewish and Christian, regarded the Jewish body as one to be envied and emulated (as illustrated by the issue of circumcision). Less clear, however, is how widespread the impact of such views actually was. Without this context, the book's important revelations are muted.

LYNNE FALLWELL

John L. Heilbron (Editor). *Advancements of Learning: Essays in Honour of Paolo Rossi.* (Biblioteca di Nuncius, 62.) viii + 276 pp., illus., index. Florence: Leo S. Olschki, 2007. €30 (cloth).

In most countries, the so-called *Festschrift* has gone out of fashion. Nowadays one seldom comes across such a volume, containing articles honoring an eminent scientist or scholar on the occasion of his or her retirement or a significant birthday. This is not because scholars have become less vain than in earlier days or because students have become more critical of their teachers, but mainly because publishers don't think there is a market for such books. Furthermore, you cannot have a *Festschrift* reviewed by other scholars, since a *Festschrift* essentially is a gift, a present, and you simply don't review presents. Of course, these publishers are right—publishers are always right. Still, it is a pity. As long as the articles are thematically connected or are at least related to the work of the man or woman to whom the volume is dedicated, and especially when the volume contains an introduction that sketches his or her work and offers a decent bibliography, I think that a *Festschrift* can really render the scholarly world a service.

Paolo Rossi (who turned eighty in 2003) certainly deserves to be honored with a *Festschrift.* His first book, *Francesco Bacone: Dalla magia alla scienza* (1957), was instrumental in opening our eyes to forgotten dimensions of Bacon's philosophy, while his *Clavis universalis: Arti mnemoniche e logica combinatorial da Lullo a Leibniz* (1960) in many ways foreshadowed Frances Yates's much more influential *The Art of Memory* (1966). The little book he published two years later, *I filosofi e le machine* (translated in 1970 as *Philosophy, Technology, and the Arts in the Early Modern Era*), is still fundamental for the social interpretation of the Scientific Revolution. Finally, his brilliant book about the conflicts and compromises between geology and biblical chronology, *I segni del tempo* (1979; translated in 1984 as *The Dark Abyss of Time: The History of the Earth and the History of Nations from Hooke to Vico*), demonstrated that Rossi was an all-round historian of science, truly a "maître á penser," as they say in France. I would be the last one to deny that he deserves a *Festschrift* in which students and friends would reflect on the themes he has written about so brilliantly.

So: does this recent volume of essays meet the criteria for a meaningful *Festschrift*? I am afraid the answer is no. The introduction to the volume simply explains that this is in fact the second *Festschrift* in honor of Rossi, the first one (in Italian) having been offered to him in 1995 on the occasion of his seventieth birthday in 1993. Some reflection on Rossi's work is to be found in the opening article by William Shea, "The Scientific Revolution Revisited," but this article is simply—as is duly acknowledged in the first footnote—the original English version of a piece published in the first *Festschrift*, more than ten years ago. Other contributions do indeed address issues that have long occupied Rossi, like the interpretation of the work of Francis Bacon and the early history of geology as a science. Yet there are other essays that are at best indirectly related to his work (e.g., articles on French physics in the time of Napoleon or the experimental study of "monsters") and that do not cite him even once. As a whole, *Advancements of Learning* is a very mixed bag that hardly provides the reader with a sense of Rossi's work.

To be sure, each of the essays is a serious piece of scholarship. It is always worthwhile to read what William Shea has to say about the idea of the Scientific Revolution, what Brian Vickers can teach us about the reputation of Francis Bacon, and what Ian Hacking has found out about the logical diagram that is known as "the tree of Porphyry." No less instructive are the pieces by John L. Heilbron on Bacon's reputation in France around 1800, Tore Frängsmyr on Swedish contributions to Ice Age geology, and Jean-Louis Fischer on the varied functions of monstrosities in the course of history. Finally, no one can deny the scholarly value of the remaining contributions: by Lisa Jardine (Rossi, Bacon, and hands-on science), Rhoda Rappaport (geological concepts), Charles C. Gillispie (science in France around 1800), and George Rousseau (the decline of the theory of animal spirits). Yet, taken as a whole, the volume lacks coherence and fails to inform the reader about Paolo Rossi. There is no substantial introduction, no attempt to relate the contributions to each other,

no bibliography. A reviewer more malicious than I am would be tempted to say that what we have here are simply members of the old guard congratulating themselves on their friendship with the eminent Italian historian of science. I am not that malicious—but even I was wondering whether Paolo Rossi was really happy with this birthday present.

KLAAS VAN BERKEL

Victor J. Katz (Editor). *The Mathematics of Egypt, Mesopotamia, China, India, and Islam: A Sourcebook.* xiv + 685 pp., illus., figs., tables, apps., index. Princeton, N.J.: Princeton University Press, 2007. $75 (cloth).

The relationship between the mathematics of the European tradition and that of the five cultures (or collections of cultures) represented in this volume lies at the heart of any expression of what mathematical achievement is. Over the past thirty years, scholarship on the history of "non-European" mathematics has provided a far richer picture than was available before that point. Such studies show the complex filiations linking these traditions with those of Europe and with each other. They likewise depict quantitative analysis and thinking as playing a key social role in complex societies. While many aspects of the picture remain unclear and controversial, a volume like this has the potential to stimulate further research interest among new scholars. It will also help to counter the stereotype, common among mathematicians, that little of interest was done in mathematics outside Europe.

The appearance of such a sourcebook reminds us of older collections from Harvard: Morris Cohen and I. E. Drabkin's *Source Book in Greek Science*, D. J. Struik's *Source Book in Mathematics, 1200–1800*, and Ivor Bulwer-Thomas's two volumes of bilingual text on Greek mathematics in the Loeb series. Like those works, *The Mathematics of Egypt, Mesopotamia, China, India, and Islam* offers selections in English of work from each of the language groups. In addition, it contains texts by the editors of each section that both introduce and comment on the selections. A feature of most of these cultures is the existence of a relatively rich set of works commenting on "classics." The volume provides a rich collection of sources and these intertextual commentaries, and the reader is expertly guided to various remarkable features of the texts. The book is well produced, with very helpful typographic distinctions between the various categories of texts that make it easy to use. The illustrations are well selected and clear. There is a useful index, mostly of names, and each chapter is accompanied by a structured list of sources, as well as a list of references. The reference lists are particularly good, since they provide a unified source for more recent material, principally that in English (though in the Islamic chapter the reader is referred to the standard bibliography by Albert Lewis, which is supplemented here by a few recent entries).

The material selected combines reprints of existing translations with new translations into English, either from the original (as is the case for all of the Egyptian and Mesopotamian material) or from other European languages, with reference to the original texts. For all of these cultures the dangers of translation are considerable—more so, I think it fair to say, than for European languages. The possibility of completely obscuring important developments by choosing an insufficiently nuanced term increases with historical and cultural distance. But here it is often the case that translation becomes a genuine tool of understanding, quite beyond what it contributes to those who cannot read the original languages.

This is particularly true for the Mesopotamian and Egyptian materials, where Eleanor Robson's and Annette Imhausen's selections highlight the complexities that had to be overcome to establish basic arithmetic and geometry. Beyond the mere technicalities, we find rich literary texts, full of information about how mathematical procedures are linked to daily tasks like plowing, cultivation, and construction. We learn much, too, about the activities of the scribe, both as apprentice and as mature practitioner. I particularly liked the "modern excursion" boxes in Imhausen's section, to which such anachronistic yet obvious questions as the value of π are consigned. The result of these two sections should be to make a wide public aware of recent insights about the most ancient mathematical remains we have.

Kim Plofker's section on mathematics in India likewise will serve to bring newer scholarship into an area where much confusion once reigned. The older European view that all Indian mathematical work derived from Greek sources, countered by strong claims from scholars rooted in the subcontinent, is now beginning to be assessed somewhat more dispassionately. Here we range from anonymous antiquity, in the Vedic texts and the Sulbasutras, to the contributions of significant innovators like Aryabhata, Bhaskara, and Madhava. The work of Madhava and his school on infinite series has been advanced as an example of Indian priority over European mathematics, and it is useful to find both detailed excerpts from these works and a